AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph beginning on page 2, line 13 as follows:

~~DISCLOSURE~~ SUMMARY OF THE INVENTION

Please amend the paragraph beginning on page 3, line 8 as follows:

Also, the wavelength selecting filter may ~~includes~~ include a band pass filter and a reflector, and light that has been transmitted by the single-mode waveguide goes through the band pass filter, and then part of it is reflected by the reflector and fed back to the active layer of the semiconductor laser.

Please amend the paragraph beginning on page 6, line 22 as follows:

DESCRIPTION OF THE ~~PREFERRED~~ EMBODIMENTS

Please amend the paragraph beginning on page 10, line 3 as follows:

A volume grating is a bulk material having a periodic change in refractive index. It is composed of a material whose main component is a UV-curing material, and the interference of light is utilized to form a grating structure. Bragg reflection produced by a periodic refractive index grating formed in [[a]] bulk results in narrow-band reflection characteristics with a narrow half band width. FIG. 4 shows the transmission characteristics of a volume grating. Narrow-band reflection characteristics produced by Bragg reflection are exhibited in the vicinity of the phase matching wavelength λ of the wavelength conversion element. To fix the wavelength of a semiconductor laser, the half band width $\Delta\lambda 1$ of Bragg reflection is preferably 0.6 nm or less. A wavelength of 0.2 nm or less is even better. A width of 0.2 nm or less will stabilize the wavelength of the semiconductor laser and yield stable output characteristics when wavelength conversion or the like is utilized.

Please amend the paragraph beginning on page 11, line 12 as follows:

FIG. 5 is an example of the coherent light source of this embodiment, in which this principle is put to use. An optical waveguide device 300 is constituted by a tapered waveguide 303 coupled to the exit side of the wide stripe semiconductor laser 301, and a single-mode waveguide 304. A wavelength selecting filter is integrated as a Bragg reflection grating 305 in the single-mode waveguide 304. The light emitted from the semiconductor laser 301 is coupled to the tapered waveguide 303, after which it propagates through the single-mode waveguide 304. The light coupled to the single-mode waveguide 304 is reflected by the Bragg reflection grating 305 and fed back to the semiconductor laser 301. The lateral mode of the semiconductor laser 301 is automatically fixed in the mode of the greatest feedback. Specifically, when the light goes from the semiconductor laser 301 through the tapered waveguide 303 and is coupled at its maximum to the single-mode waveguide 304, the reflected light from the Bragg reflection of the single-mode waveguide 304 is at its maximum, and the optical feedback of the semiconductor laser 301 is at its largest. Accordingly, the oscillation lateral mode of the semiconductor laser 301 is automatically fixed in the mode that best couples to the single-mode waveguide 304.

Please amend the paragraph beginning on page 11, line 26 as follows:

A material that is transparent to the oscillation wavelength of the semiconductor laser is used as the material of the tapered waveguide. Examples include substances with high transparency such as $LiNbO_3$, $LiTaO_3$, SiO_2, GaN, and Al_2O_3. The power of the guided light is extremely high at the exit end face of the tapered waveguide, but end face deterioration can be prevented by using a material with low absorption.

Please amend the paragraph beginning on page 13, line 14 as follows:

The active layer width of the wide stripe semiconductor laser is preferably 100 μm or less. The "active layer width" here is defined the same as the wide stripe width. Since the width of a single-mode waveguide is from a few microns to about a few dozen microns, if there is too much difference between the width of the single-mode waveguide and the mode width of the semiconductor laser, there will be a drop in the conversion efficiency of the single-mode

waveguide constituted by the tapered waveguide. A width of- 20 μm or less is even better. At 20 μm or less, coupling with a single-mode waveguide will be possible at an efficiency of 80% or higher.

Please amend the paragraph beginning on page 14, line 31 as follows:

It is also possible to use the fiber grating shown in FIG. 6c as a wavelength selecting filter. Very precise wavelength control is possible with a fiber grating, and the oscillation wavelength of a semiconductor laser can be controlled by controlling the temperature of the ~~fiber~~ grating portion 408 formed in fiber 407. This allows the oscillation wavelength of the semiconductor laser to be adjusted to the phase matching wavelength of the wavelength conversion element. If more distance is kept from the fiber 407, the heat will not be conducted and the wavelength can be controlled stably. Another advantage is that light that has undergone wavelength conversion can be taken off from the fiber 407.

Please amend the paragraph beginning on page 17, line 27 as follows:

With a laser display, a display of high color reproducibility can be achieved by using an RGB laser 805 and diffraction element 807 (FIG. 10). High-output red semiconductor lasers have been developed as laser light sources. An increase in output has not been achieved with blue, however, and the very formation of a semiconductor laser is difficult with green. In view of this, it is necessary to use blue and green light sources that utilize wavelength conversion. In the coherent light source of the present invention, since a wide stripe semiconductor laser can be used, high-output blue and green light can be obtained by combining with a wavelength conversion element. For blue output, blue light of 440 nm can be obtained by subjecting a semiconductor laser of 880 nm to wavelength conversion, and for green output, green light of 530 nm can be obtained by subjecting a semiconductor laser of 1060 nm to wavelength conversion.

Please amend the paragraph beginning on page 18, line 5 as follows:

A two-dimensional image can be projected by integrating these light sources, projecting onto a two-dimensional switch 802 through a prism 803, and projecting the switched light source 801 onto a screen with a lens 804 (FIG. 10). The two-dimensional switch 802 can be an MEMS involving micromachines, or a liquid crystal switch, or the like. While it varies with the screen size, the required output is from a few dozen milliwatts to a few hundred milliwatts. As discussed above, the coherent light source of the present invention affords a compact short-wavelength light source, and allows a compact and highly efficient laser display to be obtained.

Please amend the paragraph beginning on page 18, line 12 as follows:

The system shown in FIG. 11 is also effective as a laser display device. A two-dimensional image is drawn on a screen 905 by scanning a laser beam 904 with reflectors 902 and 903. In this case, the laser light source 901 must have a high-speed switching function, and high-speed output modulation is possible by modulating the output of the semiconductor laser. The coherent light source of the present invention allows for higher output and is promising in laser display applications. Also, even though it is a wide stripe laser involving optical feedback, since both the vertical mode and the lateral mode are fixed in single mode, output modulation of the laser can be performed at high speed. This allows a scanning type of laser display to be obtained.